R E V I E W

On materials for participation in a competition for the academic rank "Associate Professor", higher education field 6. Agrarian Sciences and Veterinary Medicine, professional direction 6.4. Veterinary Medicine, scientific specialty "Surgery, Radiology and Physiotherapy of animals" by the scintific discipline "Surgery (Diseases on Farm Animals; Diseases on Equids; Diseases on Companion Animals)", announced in the State Gazette issue 18 of 3 January 2024 by the University of Forestry, procedure code VM-AsP-0224-127.

Applicant in the competition: Chief Assistant Professor **Konstantin Bogdanov Aminkov**, DVM, PhD.

On the basis of a meeting of the Faculty Council of the Faculty of Veterinary Medicine(protocol No. 3/ April 8, 2024) , according to order ZPS-199/ 15 April 2024 of the Rector of University of Forestry - Sofia, I am designated as a member of the Scientific Jury. According to a decision made at the first meeting of the Scientific Jury, I was appointed as one of the reviewers for this competition.

Reviewer: Professor Dimitar Savov Dimitrov, DVM, PhD, by professional direction 6.4. Veterinary Medicine, scientific speciality Morphology.

Applicant data

Chief Assistant Professor Konstantin Bogdanov Aminkov was born on December 15, 1989. During the period 2009 - 2015, he was a student of Veterinary Medicine at the Forestry University - Sofia. He graduated as a Master of Veterinary Medicine, and he is also one of the execelent students of his graduating class.

The date of the beginning of his work activity is 04.05.2015, when he started working at the veterinary clinic "AMI VET 2010 OOD", Sofia, where he was a veterinarian until 26.01.2016.

During the period 26.01.2016 - 20.09.2020, he was an Assistant Professor in the Faculty of Veterinary Medicine at the University of Forestry, Sofia.

Regardless of his workload, he managed in the period 2016-2019 to make a dissertation scientific work and defend it brilliantly. As a result, he obtained the Educational and Scientific Degree "PhD", in the scientific specialty "Surgery, Radiology and Animal Physiotherapy". In his self-assessment, he defines his communication skills as excellent for working in a team, as well as for meeting the deadlines for the implementation of the tasks. His organizational skills are demonstrated through the preparation and conducting of classes with students from the third, fourth and fifth years of the

Faculty of Veterinary Medicine. The preparation and conduct of practical exams in the relevant disciplines in the "Surgery" course. Dr. Konstantin Aminkov's digital skills are at a fluent level and include good computer literacy with proficiency in Microsoft Office, and Outlook Express.

Compliance of the candidate's submitted documents and materials with the requirements according to the Regulations for the Development of the Academic Staff of the University of Forestry, Sofia

The candidate in the current competition submits all the necessary documents, including: Curriculum vitae according to the European model; Notarized copy of Diploma of completed higher education Educational qualification degree "Master"; Notarized copy of Diploma for the Educational and Scientific Degree "PhD"; Document for occupied academic position; Certificate of internship in the specialty; Medical certificate; Certificate of conviction; Reference-self-assessment for the fulfillment of the minimum national requirements for the academic position "Associate Professor"; List of publications, inventions and other scientific and applied results; Classification of publications; The summaries of the publications and works in Bulgarian and English; Reference for citations; Reference to the scientific contributions; Certificate of participation in Research and Educational projects; Certificate of participation in Scientific conferences; Declaration under Article 313 of the Criminal Code for the reliability and originality of the information presented; Information card – in Bulgarian and English, and Advertisement in the State Gazette, issue 18 of 01.03.2024, page 102.

All documents and attachments are arranged correctly, are authentic, contain the required signatures, stamps and comply with the requirements set by the Regulations for the Development of the Academic Staff at the University of Forestry, Sofia.

Minimum national requirements (MNR) by groups of parameters for conferral of the academic rank "Associate Professor" in higher education field 6.0 „Agrarian Sciences and Veterinary Medicine", professional field 6.4 „Veterinary Medicine"

Group of parameters	Content	MNR and points for the academic rank "Associate Professor"	Points declared by the applicant	Real points of the applicant according to MNR
A	Parameter 1	50	50	50
B	Parameter 2	–	–	–
C	Sum of parameter 3 – 4	100	100	100
D	Sum of parameters 5 – 12	200	213.15	217.67
E	Sum of parameters 13 – 15	50	320	320
F	Sum of parameters 16 to the end	–	45	45
Sum of points for parameter groups		400	728.15	732.67

Evaluation of teaching and learning activity of the applicant

From the materials provided for the competition, it is clear that as of the date of submission of the documents for participation, Chief Assistant Professor Konstantin Aminkov has an internship at the University of Forestry for 8 years, 2 months and 26 days. Since 15.01.2016, Dr. Konstantin Bogdanov Aminkov is on a basic employment contract and teaches in a Faculty of Veterinary Medicine at the University of Forestry, Sofia. From Appendix № 18 and Appendix № C15 of the competition documents, it is clear that the candidate in every academic year has 90 hours of lectures and 120 hours of exercises in the discipline "Surgery (Diseases of productive animals; Diseases of equids and Diseases of company animals) "; 30 hours of lectures on the discipline "Management of herd health", in discipline "Radiology" – 30 hours of lectures and 30 hours of exercises, in Anesthesiology and Emergency Medicine – 15 hours of lectures and 15 hours of exercises; in Propaedeutics of surgical diseases in animals – 45 hours of lectures and 45 hours of exercises; in the discipline of Veterinary Dentistry – 15 hours of lectures and 15 hours of exercises; in Physiotherapy – 15 hours of lectures and 15 hours of exercises.

Doctor Konstantin Aminkov is also involved in the preparation and conduct of the clinical training of the students. He also takes part in the practical exams in the disciplines included in the compulsory training course in Surgery, Radiology, Anesthesiology, Neurosurgery, in conducting mobile clinics with students studying at the Faculty of Veterinary Medicine. All this happens during every academic semester with the students teaching in Bulgarian and with those from the English language programme. It is evident from Appendix C16 that the candidate in the competition is also the author of 2 teaching curriculum on two mandatory disciplines in Bulgarian and English:

1. The compulsory course "Propaedeutics of surgical diseases in animals", studied in the third year by students of full-time studies in the specialty "Veterinary Medicine", Educational Qualification Degree "Master", with horary 45 hours of lectures and 45 hours of exercises;

2. Elective course "Veterinary Medicine Dentistry", studied in the fourth year by full-time students from the specialty "Veterinary Medicine", Educational Qualification Degree "Master", with horary 15 hours of lectures and 15 hours of exercises.

Evaluation of research, research & development and publication activities of the applicant

In this competition for conferral of the "Associate Professor" academic rank, Chief Assistant Professor PhD Konstantin Aminkov has submitted the relevant documents and evidentiary materials, from which it is clear that he has fulfilled the criteria for occupying the

academic position "Associate Professor", specified in the Regulations for the Development of the Academic Staff in the University of Forestry.

I wish to express my satisfaction and gratitude to the candidate for providing me with the competition documentation in tabular form and through a number of attachments.

For a successfully defended dissertation and obtaining the Educational and Scientific Degree "PhD", he receives 50 points, and for the published monograph "Regenerative Therapies", the candidate in the competition receives 100 points, according to the Minimum National Requirements for holding an academic "Associate Professor" position in a scientific field 6. Agrarian Sciences and Veterinary Medicine, professional direction 6.4. Veterinary Medicine.

He has also published a book based on a dissertation scientific work entitled "Study of the Influence of Different Regenerative Therapies in Sheep and Dogs with Osteoarthritis", which gives him 40 points, according to the Minimum National Requirements for holding the academic position „Associate Professor".

Scientific publications 9 are presented and published in scientific journals, which are referenced and indexed in databases with scientific information, assign to this indicator 161.0 points.

Another 5 scientific articles published in non-refereed and edited collective volumes (presented in their entirety) add 16.67 points to the candidate's asset.

Participation in 3 scientific projects adds another 45 points to the candidate's asset.

The points required according to the University of Forestry Application Regulations for occupying the academic position "Associate Professor" are 400, and the candidate in the competition, Konstantin Aminkov, proves that he has 732.67 points in his asset.

In order to be fair and accurate in my Review, I would like to point out that for the period from 20.09.2021 until 01.12. 2021, Chief Assistant Professor K. Aminkov also held the position of "Junior Researcher" at the Research Sector of the University of Forestry, part-time (4 hours), for testing a compression anastomosis apparatus.

I accept the data submitted by the candidate in the competition for this indicator as reliable and I give my high rating.

Participation in scientific, scientific-applied and educational projects

According to Reference № 16 and Appendix C-14 from the documentation for the announced competition for "Associate Professor" it is clear that Chief Assistant Professor Konstantin Aminkov was an active participant in 3 completed scientific projects in the Research Sector of the University of Forestry, Sofia city, which bring him 45 points.

1. Research project on the topic: Application of bone marrow (BM) and platelet-enriched plasma (PRP) in osteoarthritis of the knee joint in sheep" with a duration of 2 years, Contract № NIS-151/08.03.2017. Head of the project Associate Professor Nadia Zlateva-Panayotova, PhD;

2. Scientific research project on the topic: Spread, diagnosis, prognosis, therapy and prevention of cardiac Dirofilariasis in cats in Bulgaria, with a duration of 2 years, Contract NIS-B27/03.07.2018. Head of the project Associate Professor Kostadin Kanchev, PhD;

3. Research project on the topic: Comparative study of the regenerative potential of platelet-rich plasma, sodium hyaluronate and dexpanthenol in the treatment of experimentally induced chemical and mechanical corneal ulcers in rabbits" with lasting 2 years, Contract NIS-B № 1148/05.04. 2021, Project manager Associate Professor Nadia Zlateva-Panayotova, PhD.

Reflection of the candidate's scientific activity in the literature (citability)

The applications in the competition documentation prove that the candidate for an academic position has a number of citations in refereed and indexed scientific journals, in monographs or collective volumes, which bring him 320 points. He has 6 citations in scientific publications with impact factor (IF) and 10 citations in scientific journals without impact factor (IF) or impact rank (SJR). The candidate in the competition for "Associate Professor" also has 9 citations in dissertations, monographs and collective volumes.

Contributions to the candidate's works (scientific, scientific-applied, and applied)

Konstantin Bogdanov Aminkov, PhD in his documents and applications for the competition, classified them in three directions, aimed at I. Regenerative medicine; II. Image diagnostics and III. Anesthesiology in animals, which are related to solving theoretical and practical problems.

I. Contributions related to the development, application and treatment of surgical diseases in animals for a platelet-rich plasma company

All the examples given by the candidate for the academic post involve platelet rich plasma therapy.

1. Platelet-rich plasma was administered to a cat with a complicated postoperative wound. For 10 days, the wound was treated by conservative therapy, which was ineffective. Platelet-rich plasma was infiltrated into the wound edges and wound floor three times over 10 days, resulting in rapid wound healing. Administration of platelet-rich plasma has been shown to be an effective therapeutic approach in the treatment of complicated post-operative wounds in cats (Publication № 2) – Original contribution;

2. The application of platelet-rich plasma for the treatment of a contusion-laceration wound in a dog is described. For 2 weeks, the wound was treated by conservative therapy, which did not lead to healing. Platelet-rich plasma was administered three times, every 10 days, injected into the wound bed and edges. Complete healing of the wound was observed 20 days after the last injection. The results obtained show that platelet-rich plasma is an effective and reliable method for the treatment of skin defects in dogs (Publication № 7) – Original contribution;

3. Platelet-rich plasma was used in a femur fracture in a dog that occurred after being hit by a car. The bone fragments were connected with a dynamically compressive plate, and at the 4th month, the presence of bone callus was not detected. The fixing elements have been removed. Platelet-rich plasma was administered percutaneously, directly into the fracture line, three times through 10 days. After the third injection, the presence of bone callus was radiographically established. Platelet-rich plasma has osteoinductive potential and promotes bone regeneration of a bone defect in a dog (Publication № 3) – Original contribution;

4. In dogs with osteoarthritis of the elbow and knee joints, with a high degree of lameness, a combination of platelet-rich plasma and hyaluronic acid was injected intra-articularly, three times through 10 days. After the third injection, a complete recovery of the function of the affected limbs was established. The results obtained show that the combination of platelet-rich plasma and hyaluronic acid is an effective and reliable method for the treatment of osteoarthritis in the dog (Publication № 15) – Original contribution.

II. Contributions to the field of diagnostic imaging

1. After conducting X-ray studies of brown bears with varying degrees of lameness, the candidate in the announced competition for "Associate Professor" claims that the images obtained in this study have a high diagnostic value. He recommends that veterinarians and researchers working with brown bears use roentgenoscopy and radiography as accurate and valuable methods (Publication № 5) – Original contribution;

2. The circulatory system in the area of the knee joint in sheep was studied by computer tomography. The results of this research expand, through this modern and accurate method, the knowledge of the blood supply of the knee joint and surrounding tissues, which is essential for the diagnosis and treatment in animals (Publication № 10) – Original contribution.

III. Contributions to the field of veterinary anesthesiology

1. The effects of balanced anesthesia during dental procedures in brown bears (*Ursus arctos*) were studied. It was found that the chosen anesthesia protocol did not change the physiological

indicators of the patients, except for a significant decrease in the core body temperature (Publication № 1) – Original contribution;

2. In the same setting, by evaluating cardiorespiratory function during balanced anesthesia, an idea is obtained about the influence of anesthetic agents on the cardiovascular and respiratory systems in the brown bear (Publication № 1) – Original contribution;

3. The same setting, after the application of balanced anesthesia, the presence of pain reactivity during clinical manipulations is not detected (Publication № 1) – Original contribution;

4. With total venous anesthesia, during an annual clinical examination of brown bears, this mode of anesthesia does not cause biochemical changes, except for some hematological and biochemical indicators (platelets, blood glucose and creatinine). It is applicable in prolonged clinical procedures with brown bears and has minimal critical risk to the patient (Publication № 4) – Original contribution;

5. The combination of balanced anesthesia and experimental compression anastomosis in pigs was studied. This study demonstrates that the balanced anesthetic method is highly effective in experimental procedures in pigs undergoing abdominal surgery (Publication № 9) – Original Contribution.

IV. Other contributions

1. A case of a tumor in the bladder, and its diagnosis was achieved by contrast-enhanced computed tomography. The conclusion that Chief Assistant Professor Konstantin Aminkov has formulated from this diagnostic-therapeutic finding that contrast computed tomography is a reliable imaging-anatomic method in the detection and diagnosis of formations larger than 0.5 cm. This method can also visualize abnormalities in the mucosa of organs as small as 2 mm. It is minimally invasive and has greater value compared to conventional excretory urography (Publication № 6) – Confirmatory contribution;

2. Finding of a neuroendocrine tumor found in the liver of a dancing Asiatic brown bear. Through an initial ultrasound, followed by a computed tomographic examination of the liver, nodular lesions were found in this organ. The presence of a neuroendocrine tumor and the epitheliotropic nature of the neoplasias in it was proven pathohistologically and through immunohistochemical examination (Publication № 13) – Original contribution;

3. Through anatomical imaging methods - conventional radiography, ultrasound examination and computed tomography, a diagnosis of *torsio lienis* was made in a dog that was saved by surgical intervention (Publication № 14) – Confirmatory contribution.

Applicant's personal contribution

The check that I made on each of the cited articles, in connection with the contributions, assured me that Konstantin Bogdanov Aminkov, PhD, is an active participant in each of the scientific developments and has a personal contribution to their preparation and realization.

I accept the wording of each of the contributions of the candidate for the academic position and give my highest evaluation.

Personal impressions

I know Chief Assistant Professor Konstantin Aminkov, PhD, due to the fact that I was invited a few years ago to review and comment on the evidentiary histological materials, illustrating and proving in an indisputable way the results of his dissertation work, which was successfully defended in 2019.

With conviction, I believe that K. Aminkov would be a pride to the Faculty of Veterinary Medicine at the University of Forestry with the personal and professional qualities, which he owns.

Conclusion

Based on what was noted in my review, I address the members of the esteemed Scientific Jury with the proposal of Chief Assistant Professor Konstantin Bogdanov Aminkov, PhD **to be ranked for the competitive academic position "Associate Professor of Surgery"**.

Stara Zagora

May 17, 2024

Reviewe

(Professor Dimitar S. Dimitrov, DVM, PhD)